FirstNet Highlights Progress And Future Expansion Plans For Greater Coverage

Published on 22 Mar 2019

The aftermath of the 9/11 terrorist attacks in New York City highlighted the critical need for dependable communications among first responders during emergencies and disasters.

In response, Congress established (in 2012) the independent First Responder Network Authority (FirstNet) to deliver a nationwide broadband network dedicated to public safety. AT&T was later chosen as the private company tasked over 25 years with building out the network. This month marks the first full year of FirstNet deployment, and expansion is ahead of schedule, according to Mike Worrell, FirstNet’s Senior Fire Services Advisor. The next few years will see improvements in FirstNet coverage in both urban and non-urban areas, he says.
Public Safety Agencies

“We are pleased with the progress, but there is much more work to do, and we look forward to continuing to move quickly for public safety”

This has already begun with LTE coverage for FirstNet increasing by more than 50,000 square miles nationwide in 2018; network contractor AT&T achieved this by deploying FirstNet’s Band 14 spectrum in more than 500 markets. This increases coverage and capacity for the more than 5,250 public safety agencies using over 425,000 connections on FirstNet today.

“We are now one year into a five-year build-out plan for FirstNet,” says Worrell. “We are pleased with the progress, but there is much more work to do, and we look forward to continuing to move quickly for public safety. Even after the five-year plan is met, we will continue to evolve this network to meet public safety’s needs over the course of our 25-year contract with AT&T.”

TheBigRedGuide.com contacted Worrell for more information on FirstNet and its benefits for the U.S. fire service.

TheBigRedGuide.com: What are the specific benefits of FirstNet for fire departments? Are the benefits only applicable to emergency situations, and/or what are the “day to day” benefits of the network to improve fire service operations?
Worrell: In the fire service, having the right tools is essential to ensuring successful and safe emergency response and recovery efforts. For firefighters, communications tools are critical to improving response times and providing situational awareness. AVL (Automatic Vehicle Location), ePCR (Electronic Patient Care Reporting), transmission of ECG (electrocardiogram) telemetry, CAD (Computer-Aided Dispatch) Mobile Data, and web-based notification systems all require data connectivity to operate; without them, fire department operations can be negatively impacted.

FirstNet users are able to use the network’s priority and preemption features to maintain connectivity and throughput.

This is why firefighters, and first responders across disciplines, are moving to FirstNet—the nation’s only broadband network dedicated to public safety. With FirstNet available nationwide, firefighters are taking advantage of the network’s services to ensure reliable communications during emergencies, large-scale events, and everyday response. When commercial networks are stressed and saturated by public use, FirstNet users are able to use the network’s priority and preemption features to maintain connectivity and throughput.

With FirstNet providing robust bandwidth and high speeds, firefighters can quickly and efficiently access the data needed to respond. Some departments are using FirstNet to share data—such as images of wildfires—download critical building plans, or access traffic data to provide a complete picture of any situation. Having good situational awareness provides responders with the information needed to make informed decisions. FirstNet can also improve responder safety by enabling teams to use real-time mapping capabilities to track assets and personnel, share lookout positions, and plan safe escape routes.

BRG: How can you balance the need for greater coverage of rural areas with the need for more capacity in urban areas? What guides priorities about how the network is built out?
The First Responder Network Authority (FirstNet Authority) is committed to serving all first responders because emergencies can happen anywhere. When Congress created the FirstNet Authority, it included assurances for building out coverage in rural areas at the same time as urban areas. To better serve rural areas the FirstNet buildout includes a commitment to building in places where states and territories and the public safety community have identified a need for improved coverage.

The FirstNet Authority and AT&T have worked closely with the public safety community to identify communication needs in rural areas and determine gaps. FirstNet is the only carrier that has done in-depth consultation with each state, territory, and the District of Columbia to identify the key areas where coverage is needed most by first responders. Rural areas that have recently benefitted from the FirstNet buildout include the Black Hills of South Dakota; the farming communities of Tulare County, California; and the tribal lands of the Chickasaw Nation in south-central Oklahoma.

In more urban areas where LTE coverage already exists, we are connecting with first responders to build the capacity they need to do their jobs successfully and safely. This is why urban areas such as Dallas, Los Angeles, Miami, New York City, Phoenix, San Diego, and San Francisco saw a boost in Band 14 coverage over the last year.

The FirstNet Authority is committed to working with public safety to ensure these goals are met during the buildout of the network.

BRG: Looking ahead to the next five years, what can we expect from FirstNet in terms of additional coverage, capacity and/or other factors?

Worrell: FirstNet’s future is focused on public safety and connecting rural and remote responders, increasing capacity for urban responders, and providing the public safety community with innovative solutions. The FirstNet Authority is committed to working with
public safety to ensure these goals are met during the buildout of the network. While there is much more work to do, AT&T continues to hit the ground running for public safety, delivering on time or ahead of schedule, and we are pleased with the progress.

We are also seeing the technology gap between large and small agencies closing. Because of low-cost devices and accessibility to public safety applications, technology is getting into the hands of first responders who did not previously have technology at their fingertips.

The FirstNet Authority is also continuing to work directly with public safety to identify opportunities to advance the network in future years as we seek to invest back into the network. If there are members of the fire service who are interested in engaging with the FirstNet Authority on how operationalizing public safety broadband can help them on the job and their future needs for mobile broadband, I encourage them to reach out. We have regional contacts who would be happy to speak with them.

BRG: Describe the use and availability of the nationwide fleet of 72 FirstNet dedicated deployable assets. How have the assets been effectively deployed in the past (related to the fire service)?

Situated in 40 states, these deployables are readily accessible nationwide and can be requested at no cost by FirstNet subscribers.

Worrell: In 2018, AT&T launched a fleet of 72 deployable network assets, including mobile cell towers like Satellite Cell on Light Trucks (SatCOLTs) and Cell on Wheels (COWs), to provide extra coverage in the event of an emergency or large planned event. Situated in 40 states, these deployables are readily accessible nationwide and can be requested at no cost by FirstNet subscribers.

FirstNet deployables have been used to support responders during several fire-related incidents like wildfires, notably California’s devastating 2018 Camp Fire and Oregon’s 2018
Miles Fire. When the ongoing Miles Fire forced the residents and community of Prospect, Oregon, to evacuate, the Fire Incident Management Team called in FirstNet for support. A SatCOLT was deployed at the base camp where nearly 2,000 first responders were gathering to coordinate their response efforts.

Before FirstNet deployed the SatCOLT to their base camp, first responders in Tualatin Valley, Oregon, couldn’t send a text message, let alone speak on the phone to their families. Tualatin Valley Fire & Rescue Fire Chief Mike Duyck says that, as it stands today, FirstNet is meeting their needs, giving them better situational awareness, and bringing comfort to responders during times of stress and anxiety.

**BRG:** Which fire departments should purchase their own deployable network assets in the First Responders Mobility Zone program?

**Worrell:** Through our consultation with public safety as we planned for this network, they told us of the importance of having deployable assets available to help during large disasters or to secure large planned events.

"FirstNet subscribers have access to a unique solution through our fleet of FirstNet-dedicated deployables"

FirstNet subscribers have access to a unique solution through our fleet of FirstNet-dedicated deployables, as well as the option to purchase their own deployable network assets from our First Responders Mobility Zone program. For more information on this and other FirstNet products and services, visit FirstNet’s website.
BRG: In addition to expanding network coverage and capacity, please briefly describe FirstNet's progress creating devices and apps ecosystems to connect first responders to innovative, life-saving technologies. Can you provide any examples specific to the fire service?

Worrell: As part of our commitment to providing public safety with innovative tools, the FirstNet Authority works with all public safety disciplines, including the fire service, to deliver applications and solutions to meet their needs. Another unique aspect of FirstNet is the first-ever App Catalog for first responders. It is a dedicated location to find meaningful new solutions that have been specifically reviewed for use on FirstNet. Before any app can be added to the FirstNet App Catalog, it must pass stringent tests for security, relevancy, data privacy, and more.

FirstNet subscribers can access more than two dozen apps for first responders through the FirstNet App Catalog.
As of March 2019, FirstNet subscribers can access more than two dozen apps for first responders through the FirstNet App Catalog. For example, Esri’s Explorer for ArcGIS app is now listed in the FirstNet App Catalog. The app allows first responders to access their agency’s authoritative maps in the field on mobile devices for better situational awareness.

We’re excited about the progress being made to bring innovative solutions to first responders through our growing applications ecosystem. For anyone interested in learning more about how to submit an app for the FirstNet App Catalog, find information on the FirstNet Developer Program on the website.

The FirstNet Innovation and Test Lab is a focal point for bringing emerging technology to public safety

BRG: What is the role of the FirstNet Innovation and Test Lab?

Worrell: The FirstNet Innovation and Test Lab is a focal point for bringing emerging technology to public safety. FirstNet Authority staff use the state-of-the-art lab to test the standards-based mission-critical functions and features of the FirstNet network. In the future, staff will use scenario-based tests to assess network saturation during emergencies and large-scale incidents.

The FirstNet Authority is also in the early stages of launching a FirstNet experience program that will allow firefighters and other public safety officials to explore first responder technologies through hands-on demonstrations. The program will consist of a future experience center located in Boulder, Colorado, as well as a traveling center so that first responders nationwide can engage with FirstNet on cutting-edge technologies and explore new ways to respond.
BRG: Please provide any recent examples of specific emergency situations when FirstNet made a difference, especially related to effective operation of the fire service.

Worrell: FirstNet is helping public safety across the country stay connected so they can better protect themselves and their communities. From Hurricanes Florence and Michael to a major flood in Washington County, Maryland, FirstNet is being used every day and in every type of emergency.

"FirstNet-dedicated deployables were provided to boost communications for firefighters and first responders in the area.

FirstNet also supported the response and recovery efforts during the Camp Fire wildfire that devastated Paradise, California, in November 2018. During this fire, most of the telecommunications infrastructure was damaged, making it extremely difficult for first responders to communicate. FirstNet-dedicated deployables were provided to boost communications for firefighters and first responders in the area.

Las Vegas Fire and Rescue also used FirstNet during the Life is Beautiful Music and Art Festival. In 2018, the festival coincided with a Presidential visit, bringing extra public officials and emergency communications to the city of Las Vegas. To boost communications, FirstNet distributed 30 FirstNet-ready mobile devices to the Las Vegas Fire and Rescue team so that they could use push-to-talk applications and relay voice, text, video, and location-based information in real-time. FirstNet is proud to support first responders across the country, and we look forward to continuing to drive innovation to meet their needs.

Author Profile
A New Normal: California Wildfires Deadliest In History
The immense scope and scale of this month's California wildfires are a timely reminder of a “new normal” that includes a c...

Shortage Of Volunteers In Fire Service, Growing Need For Trained Perso...
Recruiting and training enough firefighters to meet community needs has been a continuing challenge for decades, especially in the case of v...

The Value Of Data For Fire-Fighting And Firefighters’ Safety
The power of data provides numerous benefits to the fire service, and today's data collection and analysis software tools are making d...

Fentanyl: Danger To Firefighters & First Responders, Calls For Better...
Five Wilmington, Del., firefighters and two police officers were hospitalized last September when they inhaled the opioid fentanyl while res...